

C<sup>1</sup>  
of omega-3 highly unsaturated fatty acid than [the] an average  
for naturally-occurring organisms of [the] a same genus.

19-37. (Amended) The milk product of Claim ~~36~~<sup>36,8</sup> wherein  
said feed material comprises microorganisms of the genus  
*Thraustochytrium*, [and/or] *Schizochytrium* or a mixture thereof  
in whole cell form.

C<sup>2</sup>  
19-38. (Amended) The milk product of Claim ~~36~~<sup>36,8</sup> wherein  
said *Thraustochytriales* is obtained by a direct fermentation  
of grain, corn syrup or agricultural/fermentation byproducts  
by *Thraustochytrium*, [and/or] *Schizochytrium* or a mixture  
thereof.

19-46. (Amended) The milk product of Claim ~~45~~<sup>45,17</sup> wherein  
said feed material comprises microorganisms of the genus  
*Thraustochytrium*, [and/or] *Schizochytrium* or a mixture thereof  
in whole cell form.

C<sup>3</sup>  
19-47. (Amended) The milk product of Claim ~~45~~<sup>45,17</sup> wherein  
said *Thraustochytriales* is obtained by a direct fermentation  
of grain, corn syrup or agricultural/fermentation byproducts  
by *Thraustochytrium*, [and/or] *Schizochytrium* or a mixture  
thereof.

C<sup>4</sup>  
19-51. (Amended) A milk product derived from an animal  
raised by feeding said animal a feed material comprising an  
element selected from the group consisting of  
*Thraustochytrium*, *Schizochytrium*, omega-3 highly unsaturated  
fatty acid extracted from said *Schizochytrium*, omega-3 highly  
unsaturated fatty acid extracted from [and/or] said  
*Thraustochytrium*, and mixtures thereof in an amount effective

C4  
to increase the content of omega-3 highly unsaturated fatty acid in said milk product, wherein said milk product is selected from the group consisting of milk, cheese and butter, and wherein said animal is selected from the group consisting of cows, sheep and goats.

[Please add new Claims 52-68 as follows:]

52. (New) A method for producing an omega-3 highly unsaturated fatty acid containing milk product comprising the steps of:

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(a) feeding an animal a feed material comprising cultured microbial organisms containing omega-3 highly unsaturated fatty acid in an amount effective to increase the content of omega-3 highly unsaturated fatty acid in the milk of said animal; and

(b) obtaining the milk product from said animal.

53. (New) The method of Claim 52, wherein said cultured microbial organisms have a higher average amount of omega-3 highly unsaturated fatty acid than an average for naturally-occurring organisms of a same genus.

54. (New) The method of Claim 52, wherein said milk product is selected from the group consisting of milk, cheese and butter.

55. (New) The method of Claim 52, wherein said animal is selected from the group consisting of cows, sheep and goats.

56. (New) The method of Claim 52, wherein said feed material comprises an element selected from the group consisting of Thraustochytriales, omega-3 highly unsaturated fatty acid extracted from Thraustochytriales, and mixtures thereof.

57. (New) The method of Claim 56, wherein said feed material comprises microorganisms of the genus *Thraustochytrium*, *Schizochytrium* or a mixture thereof in whole cell form.

C5 58. (New) The method of Claim 56 further comprising the step of obtaining said Thraustochytriales by a direct fermentation of grain, corn syrup or agricultural/fermentation byproducts by *Thraustochytrium*, *Schizochytrium* or a mixture thereof.

59. (New) The method of Claim 56, wherein said feed material contains less than about 40% water.

60. (New) The method of Claim 56, wherein said feed material is prepared by extrusion.

61. (New) The method of Claim 52, wherein said feed material contains omega-6 highly unsaturated fatty acid in an amount effective to increase the content of omega-6 highly unsaturated fatty acid in said milk product.

62. (New) The method of Claim 52, wherein said milk product is consumable by humans.

63. (New) A method for producing a milk product comprising the steps of:

(a) raising an animal by feeding said animal a feed material comprising an element selected from the group consisting of *Thraustochytriales*, omega-3 highly unsaturated fatty acid extracted from *Thraustochytriales*, and mixtures thereof in an amount effective to increase the content of omega-3 highly unsaturated fatty acid in the milk product; and

(b) obtaining the milk product from said animal.

64. (New) The method of Claim 63, wherein said feed material comprises microorganisms of the genus *Thraustochytrium*, *Schizochytrium* or a mixture thereof in whole cell form.

CS 65. (New) The method of Claim 63, wherein said *Thraustochytriales* is obtained by a direct fermentation of grain, corn syrup or agricultural/fermentation byproducts by *Thraustochytrium*, *Schizochytrium* or a mixture thereof.

66. (New) The method of Claim 63, wherein said milk product is selected from the group consisting of milk, cheese and butter.

67. (New) The method of Claim 63, wherein said animal is selected from the group consisting of cows, sheep and goats.

68. (New) A method of producing a milk product comprising the steps of raising an animal by feeding the animal a feed material comprising an element selected from the group consisting of *Thraustochytrium*, *Schizochytrium*, omega-3 highly unsaturated fatty acid extracted from said *Schizochytrium* and/or said *Thraustochytrium*, and mixtures